

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,454	04/14/2005	Rene Derie	270344US0PCT	6889
22850 7590 03/13/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER	
			KRECK, JOHN J	
			ART UNIT	PAPER NUMBER
			3673	
		<u> </u>		
SHORTENED STATUTOR	Y PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE	
3 MO	NTHS	03/13/2007	ELECTRONIC	

## Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/13/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com oblonpat@oblon.com jgardner@oblon.com

	Application No.	Applicant(s)				
	10/531,454	DERIE ET AL.				
Office Action Summary	Examiner	Art Unit				
	John Kreck	3673				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory period variety reply within the set or extended period for reply will, by statute. Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be timused and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	I. tely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 2/26/	<u>′07</u> .					
2a) This action is FINAL. 2b) ☐ This	This action is FINAL. 2b)⊠ This action is non-final.					
•	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims	,					
4) ⊠ Claim(s) 1-15 is/are pending in the application.  4a) Of the above claim(s) is/are withdray  5) □ Claim(s) is/are allowed.  6) ⊠ Claim(s) 1-15 is/are rejected.  7) □ Claim(s) is/are objected to.  8) □ Claim(s) are subject to restriction and/o	wn from consideration.					
Application Papers						
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) accomplicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Example.	epted or b) objected to by the I drawing(s) be held in abeyance. See ion is required if the drawing(s) is ob	e 37 CFR 1.85(a). lected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)	A 🗖 (min in A m	(DTO 412)				
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date 5) Notice of Informal Patent Application Paper No(s)/Mail Date 6) Other:						

#### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/26/07 has been entered.

Claims 1-15 are pending.

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 1. Claims 1-7, 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mainwaring (U.S. Patent number 5,281,339) in view of Forrester (U.S. Patent number 5,536,899)

Mainwaring (e.g. col. 6, lines 24-35) teaches a process for treatment of sludge comprising foaming under controlled conditions; and drying the foam.

Art Unit: 3673

Mainwaring lacks the phosphatizing, although Mainwaring describes(e.g. col. 4 lines 51-58) that lead (and ions) may be removed from the sludge. Mainwaring, in the same section, describes that ions having low water solubility are removed in the foam.

Forrester teaches a similar process, which includes phosphatizing, to immobilize heavy metals found in sludge---in particular lead—by reducing their solubility.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Mainwaring process to have included phosphatizing as called for in claim 1, in order to reduce the solubility of lead contaminants, and thus improve the removal of lead from the sludge.

With regards to the newly claimed "concomitantly"; it is maintained that the combination of phosphatizing and foaming is obvious. It follows that concomitantly phosphatizing and foaming is likewise obvious. See In re Burhans, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) (selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results)

Mainwaring lacks the specific foam densities of claims 2 and 3.

One of ordinary skill in the art would have known that foam density is largely a process design variable: the density of the foam directly relates to the efficiency of separation of the foam from the bath. One of ordinary skill in the art would have found the claimed densities to be obvious through routine experimentation.

With regards to claims 4 and 11: Forrester (e.g. table in col. 5) discloses amounts of phosphoric acid in the claimed range.

Art Unit: 3673

Mainwaring fails to explicitly disclose drying "on the ground". Official Notice is taken of the fact that "drying on the ground" is a well known method of drying, and has the advantage of being inexpensive. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Mainwaring process to have included drying on the ground as called for in claim 5.

Mainwaring also discloses drying to a dry matter content greater than 65% as called for in claims 6, (see, e.g. col. 8, line 30----"dry powder" is deemed to anticipate 65% dry.)

With regards to claim 7:

Mainwaring lacks the drying in a composting tunnel. By applicant's own admission, drying in such tunnels is well known. One of ordinary skill in the art would have known that drying in composting tunnels would have been just as effective as other drying methods, thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the processes to have included drying in a composting tunnel as called for in claim 7.

With regards to claims 12 and 13: see, e.g. col. 8, line 30 of Mainwaring---"dry powder" is deemed to anticipate dry matter content in those ranges.)

With regards to claims 14 and 15: Mainwaring lacks the specific number of drying days, however one of ordinary skill in the art would have been aware that drying is a highly variable process, dependent on such factors as weather conditions. Drying for 2-7 or 4-6 days would have been obvious, since the drying time is a process variable.

Art Unit: 3673

2. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mainwaring and Forrester and further in view of Derie (U.S. Patent number 6,132,355).

Mainwaring lacks the calcining, but discloses that the dried foam is to be disposed of; while remaining silent as to the manner of disposal.

Derie teaches a similar process in which a heavy metal containing product is calcined.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Mainwaring process to have included calcining, in order to produce an inert mortar.

### Response to Arguments

3. Applicant's arguments filed 2/26/07 have been fully considered but they are not persuasive.

Applicant has argued that there is no similarity between the Forrester and Mainwaring process. This is not persuasive: it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both references are drawn to disposal of lead from sludges.

Art Unit: 3673

Applicant has asserted that since the phosphate treatment of Forrester would make the lead less soluble, it is not compatible with the foaming process taught by Mainwaring. This is not persuasive: Mainwaring explicitly discloses the desirability of low solubility of the contaminants. (4:57). With regards to the newly claimed "concomitantly" foaming and phosphatizing: applicant has presented no evidence—or even alleged—that this results in an unexpected performance. Absent evidence of new or unexpected results, the order of performing process steps is prima facie obvious.

See In re Burhans, 154 F.2d 690, 69 USPQ 330 (CCPA 1946)

It is noteworthy that applicant has not alleged that any of the claim limitations—other than the "concomitantly" foaming and phosphatizing—are absent from the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kreck whose telephone number is 571-272-7042. The examiner can normally be reached on Mon-Thurs 530am-2pm; Fri: telework.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3673

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Kreck Frimary Examiner Art Unit 3673

7 March 2007